

Utah Influenza Report

This report contains data through the week ending 4/13/2013 (MMWR week 15).

Overview of Influenza Surveillance: Surveillance for the 2012-2013 influenza season officially began on September 30, 2012. The Utah Department of Health publishes a weekly report throughout the active influenza season that synthesizes data from a variety of sources to give the most complete and up-to-date picture of influenza activity in the state of Utah. Data in this report should be considered provisional, and may change as more complete reports are received.

Influenza-like Illness (ILI): The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) is a national system that conducts surveillance for influenza-like illness (ILI) in outpatient healthcare facilities. ILINet providers report weekly the total number of patients seen for any reason and the number of patients seen with ILI (defined as a fever $\geq 100^{\circ}$ F and a cough or sore throat). These data are used to determine the amount of ILI circulating in the community, as well as provide insight into regional differences in ILI activity. Currently, more than 50 facilities throughout Utah participate in ILINet.

Figure 1. Weekly Influenza-like Illness Activity

Influenza-like illness (ILI) activity as measured by the number of standard deviations from the epidemic threshold - Utah, 2012-2013

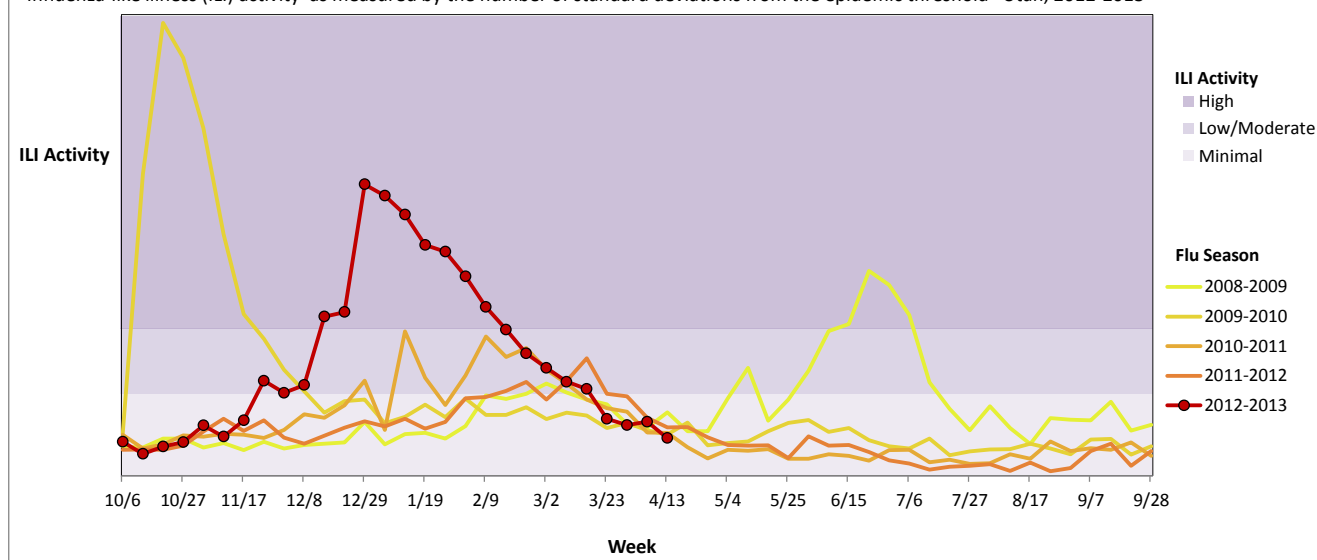


Table 1. Influenza-like Illness (ILI) Activity Levels by Health District - Utah, Current Week

Health District	ILI Activity
Bear River	Minimal
Central	Minimal
Davis	Minimal
Salt Lake	Minimal
Southeastern	No Data
Southwest	Minimal
Summit	Minimal
Tooele	Minimal
TriCounty	No Data
Utah	Minimal
Wasatch	Minimal
Weber-Morgan	Minimal
State	Minimal

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Influenza Hospitalizations: Influenza hospitalizations are a reportable condition in Utah. A person meets the case definition for an influenza hospitalization if they are hospitalized for any length of time and have an influenza positive serology, DFA, PCR, or culture test (confirmed case) or a positive rapid influenza diagnostic test (probable case). Public health in Utah gathers a variety of data on influenza hospitalizations including clinical features, course of illness, risk and protective factors, and influenza type and subtype. Data from influenza hospitalizations allows public health in Utah to better understand subgroups of the Utah population that are most severely effected by influenza and help to guide prevention messages and interventions.

Figure 2. Influenza Hospitalizations

Number of influenza hospitalizations by event date* - Utah, 2012-2013

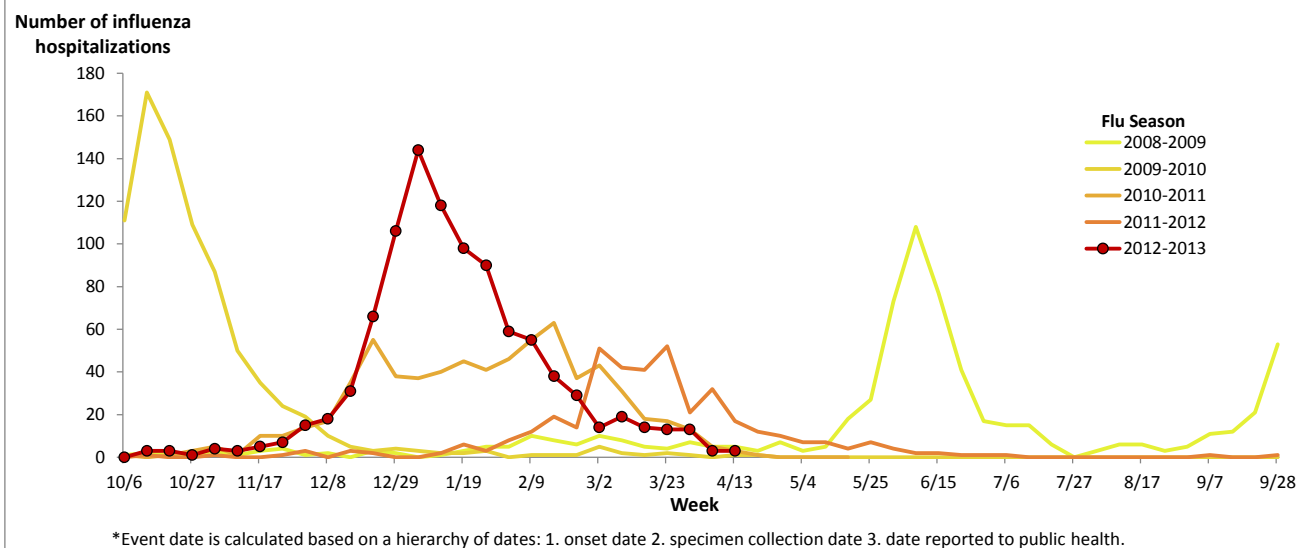


Table 2. Influenza Hospitalizations by Case Status - Utah

Case Status	Current Week		Season To Date	
	Total	% of Cases	Total	% of Cases
Confirmed	3	100.0	913	93.9
Probable	0	0.0	59	6.1
Total	3	100.0	972	100.0

Table 3. Influenza Hospitalizations by Health District - Utah

Health District	Current Week	Season To Date
Bear River	0	51
Central	0	42
Davis	0	73
Salt Lake	1	436
Southeastern	0	3
Southwest	2	105
Summit	0	14
Tooele	0	5
TriCounty	0	16
Utah	0	148
Wasatch	0	4
Weber-Morgan	0	75
State	3	972

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Table 4. Influenza Hospitalizations by Age Group - Utah, Season To Date

Age Group	Total Cases	% of Cases	Rate*
0-4	191	19.7	70.58
5-24	137	14.1	14.48
25-49	123	12.7	12.40
50-64	131	13.5	32.71
65+	390	40.1	157.90
Total	972	100.0	34.03

*Rate is calculated as the number of cases per 100,000 population

Table 5. Influenza Hospitalizations by Sex and Race - Utah, Season To Date

Variable	Num. of Cases	% of Cases	% in Utah Pop	p value*
Sex				
Male	477	49.1	50.3	0.4438
Female	494	50.8	49.7	0.4829
Unknown	1	0.1	NA	--
Race				
White, Not Hispanic	767	78.9	82.0	0.0110
Hispanic	127	13.1	11.6	0.1498
Native Hawaiian/Pacific Islander	36	3.7	0.7	<0.0001
Black/African American	17	1.7	0.9	0.0081
American Indian	4	0.4	1.1	0.0337
Asian	21	2.2	1.9	0.5022
Unknown	0	0.0	NA	--

*If a p value is ≤ 0.05 , there is a significant difference between the percentage seen in influenza hospitalizations and the general Utah population.

Table 6. Summary Data for Influenza Hospitalizations - Utah, Season To Date

Variable	Yes		No		Unknown	
	Total	% of Cases	Total	% of Cases	Total	% of Cases
ICU	155	15.9	747	76.9	70	7.2
Ventilator	56	5.8	849	87.3	67	6.9
Died	32	3.3	878	90.3	62	6.4
Neurological Symptoms	114	11.7	769	79.1	89	9.2
Healthcare Worker	7	0.7	565	58.1	400	41.2
Pregnant	31	3.2	930	95.7	11	1.1
Heart Disorder	296	30.5	595	61.2	81	8.3
Blood Disorder	24	2.5	865	89.0	83	8.5
Kidney Disorder	86	8.8	803	82.6	83	8.5
Metabolic Disorder	242	24.9	649	66.8	81	8.3
Chronic Respiratory Disorder	283	29.1	611	62.9	78	8.0
Immunosuppressed	93	9.6	791	81.4	88	9.1
Neurological Disorder	114	11.7	769	79.1	89	9.2
Seizure Disorder	33	3.4	858	88.3	81	8.3
Bacterial Co-infection	17	1.7	872	89.7	83	8.5
Obese*	199	31.0	325	50.7	117	18.3
Morbidly Obese*	43	6.7	481	75.0	117	18.3
Risk Factor†	882	90.7	90	9.3	0	0.0
Vaccinated	348	35.8	425	43.7	199	20.5

*Obesity and morbid obesity is not considered for individuals under 18 years or pregnant women. Thus total counts will not equal the total number of influenza-associated hospitalizations

†Risk factors for influenza include: persons < 5 years, persons ≥ 65 years, pregnant women, and persons with a chronic medical condition.

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Student Absenteeism: School-age children are at high risk for respiratory virus infections, including influenza. Aggregate, all-cause absenteeism data is collected weekly from over 350 schools throughout Utah. These data are analyzed to identify elevated absenteeism rates that could indicate the circulation of influenza in school-age children.

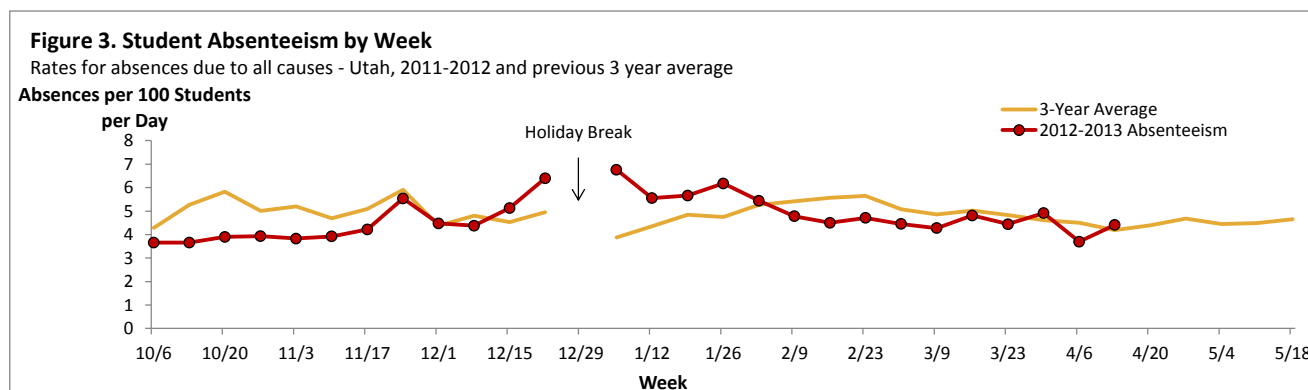
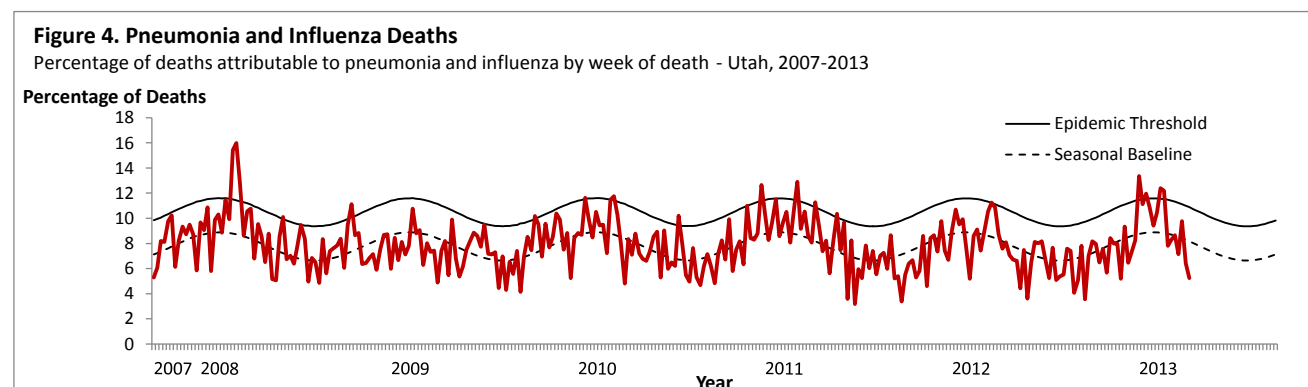


Table 7. Weekly Student Absenteeism - Utah, Current Week

Health District	Absences per 100 students/day
Bear River	3.6
Central	4.4
Davis	2.4
Salt Lake	3.6
Southeast	6.0
Southwest	5.0
Summit	4.9
Tooele	5.6
TriCounty	4.9
Utah	2.3
Wasatch	4.6
Weber-Morgan	5.2
State	4.4

Pneumonia and Influenza Deaths: Each week the total number of death certificates received and the number of those for which pneumonia or influenza was listed as an underlying or contributing cause of death is collected. The percentage of deaths due to pneumonia and influenza are compared with a seasonal baseline and epidemic threshold value calculated for each week. These data are used to monitor the severity of influenza illness in the community.



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Laboratory Surveillance: The Unified State Laboratory: Public Health receives specimens from all over the state for comprehensive influenza testing. All specimens are tested to determine influenza type and subtype. A portion of specimens are also sent to the Centers for Disease Control and Prevention for additional testing, including gene sequencing, antiviral resistance testing and antigenic characterization.

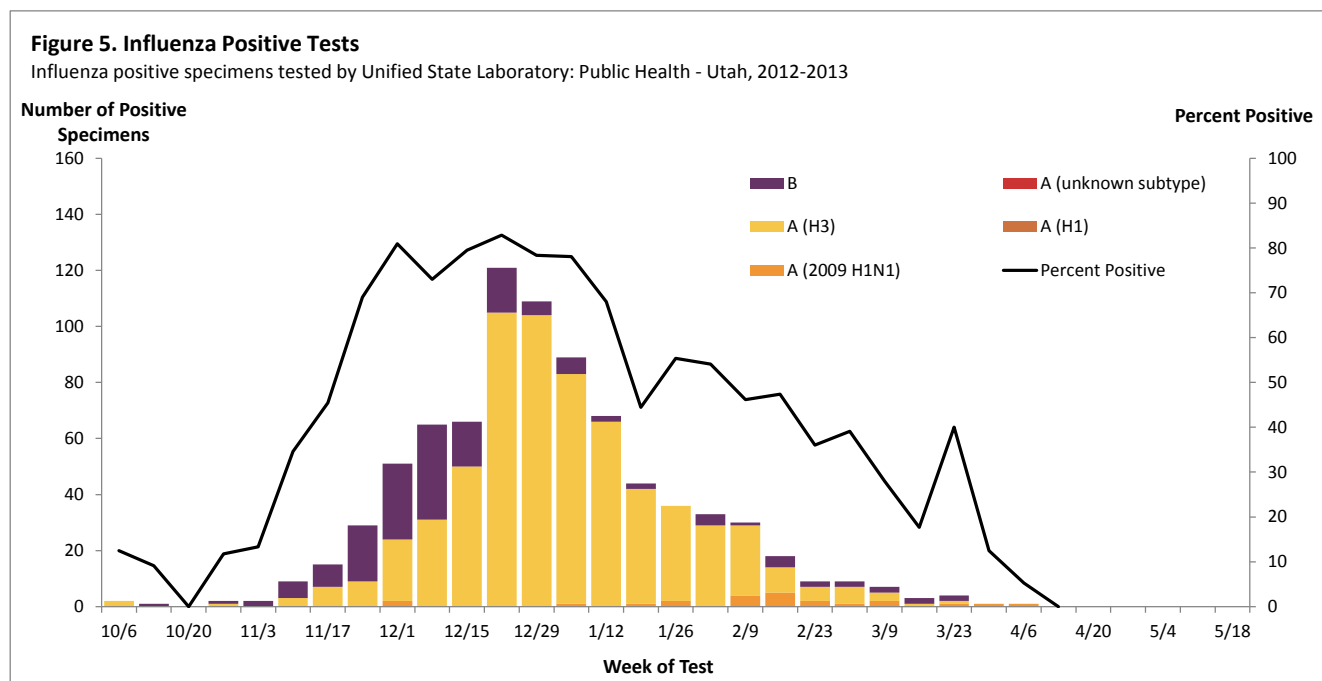


Table 8. Unified State Laboratory: Public Health Influenza Testing Data

	Current Week		Season To Date	
	Total	Percent	Total	Percent
Specimens tested	7	--	1,365	--
Positive specimens	0	0.0	824	60.4
Positive Specimens by Type/Subtype				
Influenza A	0	0.0	659	80.0
A (2009 H1N1)	0	0.0	23	3.5
A (H1)	0	0.0	0	0.0
A (H3)	0	0.0	636	96.5
A (unable to subtype)	0	0.0	0	0.0
Influenza B	0	0.0	165	20.0